

1. A system for generating and storing one or more prepaid electronic vouchers comprising:

 - a voucher host system adapted to generate said prepaid electronic vouchers;
 - a voucher smart card; and
- 5 a voucher terminal adapted to receive said prepaid electronic vouchers from said voucher host system over a network connection and to store said prepaid electronic vouchers in said voucher smart card.
- 10 2. The system of claim 1 further comprising a transaction server adapted to mediate and aggregate transactions and communications between said voucher terminal and said voucher host system over said network connection.
- 15 3. The system of claim 1 wherein said voucher smart card comprises a removable smart card selected from a group consisting of a “full size” smart credit card, a “full size” smart debit card, a “plug-in” Subscriber Identification Module (SIM) smart card, a “plug-in” Secure Access Module (SAM) smart card, a contactless smart card, a stored-value card, a coupon card, a reward card, an electronic cash card, a loyalty card, an identification card and combinations thereof.
- 20 4. The system of claim 1 wherein said voucher smart card comprises a hardware security module (HSM) selected from a group consisting of microprocessors and storage accessories.
- 25 5. The system of claim 1 wherein said voucher terminal comprises a wireless communication device equipped with a smart card reader/writer module selected from a group consisting of a mobile phone, a personal digital assistant (PDA), a pager, a point of sale (POS) terminal, a television remote control, a personal computer and combinations thereof, and wherein said smart card reader/writer module is adapted to receive and read/write information stored in/to said voucher smart card, respectively.

6. The system of claim 1 wherein said voucher terminal comprises a wired communication device equipped with a smart card reader/writer module selected from a group consisting of a phone, a wired personal digital assistant (PDA), a point of sale(POS) terminal, a television, a personal computer and combinations thereof, and
5 wherein said smart card reader/writer module is adapted to receive and read/write information stored in/to said voucher smart card, respectively.
7. The system of claim 1 wherein said voucher terminal comprises a wireless communication device comprising a subscriber identification module (SIM) card slot, a
10 smart card reader/writer module electrically connected to said SIM card slot and wherein said smart card reader/writer module is adapted to receive and read/write information stored in/to said voucher smart card, respectively.
8. The system of claim 1 wherein said network is selected from a group consisting of
15 the Internet, a telecommunications network, a wireless wide area network (WWAN), a wireless local area network (WLAN), a personal area network (PAN) and a private communication network.
9. The system of claim 8 wherein said wireless wide area network (WWAN) is selected from a group consisting of a Global System for Mobile Communications(GSM),
20 General Packet Radio Service (GPRS), a Code Division Multiple Access(CDMA), CDMA 2000, and wideband CDMA(WCDMA).
10. The system of claim 2 wherein said communications comprise a format selected
25 from a group consisting of Short Message Service (SMS), General Packet Radio Service (GPRS), Transmission Control Protocol/Internet Protocol (TCP/IP), User Datagram Protocol (UDP), Simple Mail Transmission Protocol (SMTP), Simple Network Management Protocol (SNMP), and proprietary message formats.
- 30 11. The system of claim 1 further comprising a printer adapted to connect to said voucher terminal for printing hard copies of said prepaid electronic vouchers.

12. The system of claim 11 wherein said printer is connected to said voucher terminal via a wired connection selected from a group consisting of a serial connection, a parallel connection, a USB connection and a mini USB connection.

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13. The system of claim 11 wherein said printer is connected to said voucher terminal via a wireless connection selected from a group consisting of infrared, Bluetooth, 801.1x, and short-range radio frequency (RF) connections.

10 14. The system of claim 1 wherein said prepaid electronic vouchers comprise data selected from a group consisting of a mobile operator code, a voucher number, a voucher expiration date, said voucher number in an encrypted format, a voucher value, voucher currency code, voucher product code, voucher product description, voucher owner code, and voucher owner.

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15. The system of claim 1 wherein said prepaid electronic vouchers comprise encrypted data.

20 16. The system of claim 15 further comprising a voucher encryption smart card wherein said voucher encryption smart card comprises a voucher encryption key for decrypting said encrypted data.

25 17. The system of claim 16 wherein said voucher encryption key is selected from a group consisting of a personal identification number (PIN), a private key, a public key, a symmetric key and an asymmetric key.

30 18. The system of claim 16 wherein said decrypting utilizes techniques selected from a group consisting of symmetric keys, asymmetric keys, data encryption standard (DES, 3DES), RSA, elliptical curve cryptography (ECC), message authentication codes (MAC, HMAC, SHA-1, AES, and public key infrastructure (PKI).

19. The system of claim 1 wherein said voucher terminal further comprises a first voucher application wherein said first voucher application provides retrieving of said stored electronic prepaid vouchers from said voucher smart card and printing hard copies of said prepaid electronic vouchers.

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20. The system of claim 19 wherein said first application further provides decrypting encrypted data stored in said electronic prepaid vouchers.

21. The system of claim 1 wherein said voucher terminal further comprises a second

10 voucher application wherein said second voucher application provides transferring one or more of said stored prepaid electronic vouchers from said voucher smart card to another voucher smart card.

22. A method for generating and distributing one or more prepaid electronic vouchers

15 issued by a merchant for providing a service or a product, said method comprising:

providing a voucher host system adapted to generate said prepaid electronic vouchers;

providing a voucher terminal adapted to receive said prepaid electronic vouchers from said voucher host system over a network connection and to store said prepaid 20 electronic vouchers in a voucher smart card;

placing a purchase order and paying for one of said one or more prepaid electronic vouchers from said voucher terminal to said voucher host system over said network connection;

downloading said one prepaid electronic voucher from said voucher host system 25 to said voucher terminal over said network connection and storing said one prepaid electronic voucher in said voucher smart card;

retrieving said one prepaid electronic voucher from said voucher smart card; and

presenting said one prepaid electronic voucher to said merchant and receiving said service or product.

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23. The method of claim 22 further comprising providing a transaction server adapted to mediate and aggregate transactions and communications between said voucher terminal and said voucher host system over said network connection.

5 24. The method of claim 22 further comprising printing a hard copy of said one prepaid electronic voucher before presenting said one prepaid electronic voucher to said merchant.

10 25. The method of claim 22 wherein said one electronic prepaid voucher comprises data selected from a group consisting of a mobile operator code, a voucher number, a voucher expiration date, said voucher number in an encrypted format, a voucher value, voucher currency code, voucher product code, voucher product description, voucher owner code, and voucher owner.

15 26. The method of claim 22 wherein said one prepaid electronic voucher comprises encrypted data.

27. The method of claim 26 wherein an encryption key for said encrypted data is stored in an encryption smart card.

20 28. The method of claim 27 further comprising decrypting said encrypted data by inserting said encryption smart card in said voucher terminal, retrieving said encryption key and using it to decrypt said encrypted data.

25 29. The method of claim 22 wherein said voucher smart card comprises a removable smart card selected from a group consisting of a “full size” smart credit card, a “full size” smart debit card, a “plug-in” Subscriber Identification Module (SIM) smart card, a “plug-in” Secure Access Module (SAM) smart card, a contactless smart card, a stored-value card, a coupon card, a reward card, an electronic cash card, a loyalty card, an
30 identification card and combinations thereof.

30. The method of claim 22 wherein said voucher smart card comprises a hardware security module (HSM) selected from a group consisting of microprocessors and storage accessories.
- 5 31. The method of claim 22 wherein said voucher terminal comprises a wireless communication device equipped with a smart card reader/writer module selected from a group consisting of a mobile phone, a personal digital assistant (PDA), a pager, a point of sale (POS) terminal, a television remote control, a personal computer and combinations thereof, and wherein said smart card reader/writer module is adapted to receive and
10 read/write information stored in/to said voucher smart card, respectively.
- 15 32. The method of claim 22 wherein said voucher terminal comprises a wired communication device equipped with a smart card reader/writer module selected from a group consisting of a phone, a wired personal digital assistant (PDA), a point of sale(POS) terminal, a television, a personal computer and combinations thereof, and wherein said smart card reader/writer module is adapted to receive and read/write information stored in/to said voucher smart card, respectively.
- 20 33. The method of claim 22 wherein said voucher terminal comprises a wireless communication device comprising a subscriber identification module (SIM) card slot, a smart card reader/writer module electrically connected to said SIM card slot and wherein said smart card reader/writer module is adapted to receive and read/write information stored in/to said voucher smart card, respectively.
- 25 34. The method of claim 22 wherein said network is selected from a group consisting of the Internet, a telecommunications network, a wireless wide area network (WWAN), a wireless local area network (WLAN), a personal area network (PAN) and a private communication network.
- 30 35. The method of claim 34 wherein said wireless wide area network (WWAN) is selected from a group consisting of a Global System for Mobile Communications(GSM),

General Packet Radio Service (GPRS), a Code Division Multiple Access(CDMA), CDMA 2000, and wideband CDMA(WCDMA).

36. The method of claim 23 wherein said communications comprise a format selected
5 from a group consisting of Short Message Service (SMS), General Packet Radio Service
(GPRS), Transmission Control Protocol/Internet Protocol (TCP/IP), User Datagram
Protocol (UDP), Simple Mail Transmission Protocol (SMTP), Simple Network
Management Protocol (SNMP), and proprietary message formats.
- 10 37. The method of claim 22 wherein said prepaid electronic vouchers comprise data
selected from a group consisting of a mobile operator code, a voucher number, a voucher
expiration date, said voucher number in an encrypted format, a voucher value, voucher
currency code, voucher product code, voucher product description, voucher owner code,
and voucher owner.
- 15 38. The method of claim 27 wherein said voucher encryption key is selected from a
group consisting of a personal identification number (PIN), a private key, a public key, a
symmetric key, and an asymmetric key.
- 20 39. The method of claim 28 wherein said decrypting utilizes techniques selected from
a group consisting of symmetric keys, asymmetric keys, data encryption standard (DES,
3DES), RSA, elliptical curve cryptography (ECC), message authentication codes (MAC,
HMAC, SHA-1, AES, and public key infrastructure (PKI).
- 25 40. The method of claim 22 wherein said voucher terminal further comprises a first
voucher application wherein said first voucher application provides said retrieving of said
stored electronic prepaid vouchers from said voucher smart card and printing hard copies
of said prepaid electronic vouchers.
- 30 41. The method of claim 40 wherein said first application further provides decrypting
of encrypted data stored in said electronic prepaid vouchers.

42. The method of claim 40 wherein said voucher terminal further comprises a second
voucher application wherein said second voucher application provides transferring one or
more of said stored prepaid electronic vouchers from said voucher smart card to another
5 voucher smart card.

43. The method of claim 22 further comprising transferring said one prepaid voucher
from said voucher smart card to a second voucher smart card.

10 44. The method of claim 22 further comprising transferring said one prepaid voucher
from said voucher smart card to a second voucher terminal.

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